EXCALIBUR

K-9 CAR ALARM

AL-1010-EDP
AL-1510-EDP
K9-CLASSIC-EDP2-ECHO

Deluxe Security & Convenience System

Installation Guide

February 16, 2011

Temporary cover. Color cover is in a separate file.

Table Of Contents

Installation Considerations

BEFORE STARTING THE INSTALLATION, READ THIS ENTIRE MANUAL TO FAMILIARIZE YOURSELF WITH ANY INSTALL REQUIREMENTS

- BE SURE TO VERIFY EACH CIRCUIT WITH A DIGITAL MULTIMETER
- IDENTIFY WHICH CIRCUITS ARE REQUIRED FOR THE VEHICLE IN QUESTION
- MOUNT ANY SYSTEM COMPONENTS AND ROUTE WIRING AWAY FROM MOVING PARTS OR PARTS OF THE VEHICLE THAT GENERATE EXCESSIVE HEAT
- TAPE OFF OR REMOVE ANY UNUSED WIRING TO PREVENT POSSIBLE SHORT CIRCUITS
- **AVOID ANY AIRBAG CIRCUITS, USUALLY INDICATED BY A YELLOW SLEEVE OR JACKET AROUND THE WIRING**

5 Pin Main Wire Harness

Most of the main wiring harness connections are primary power circuits so high reliability connections must be made. It is recommended to solder and adequately insulate each connection. Many of these connections are made at the vehicle's ignition switch so be sure to properly route the harness away from steering wheel tilt mechanisms or anything that could compromise the wire insulation.

RED WIRE - CONSTANT POWER (+) INPUT

REQUIRED. This wire provides the constant positive 12v power supply for the system's operation. **CONNECTION:** Connect this to a constant +12 volt supply with sufficient amperage (15A). The +12v power supply to the ignition switch or direct connection to the car battery is ideal. Some vehicle's have low amperage ignition switches in which case you would need to find a power supply at a fuse block or at the vehicle's battery. Be sure this wire is fused within 6 inches of the connection to the vehicle. The 15AMP fuse protects the system module, NOT THE VEHICLE. Its use is REQUIRED.

BLACK WIRE - SYSTEM GROUND (-) INPUT

REQUIRED. This input provides negative ground for all system operations.
CONNECTION: Using a properly sized ring terminal, connect this wire to the vehicle's chassis. Using an existing bolt is preferred but make sure that the connection point is clean and free of dirt, grease, or paint. Bright shiny metal at the connection point is desired.

6 Pin Main Wire Harness (cont'd)

YELLOW WIRE - IGNITION (+) INPUT

REQUIRED. This connection is required and is critical to the operation of the system. It is an "IGNITION ON" input when the ignition key is turned on.
CONNECTION: The vehicle's primary ignition circuit is typically found at the ignition switch. The proper circuit will show +12v when the ignition key is in the ON/RUN and START positions.

GRAY WIRE - TRUNK RELEASE / 2ND CHANNEL (-) OUTPUT

This output provides a 250mA negative output when the trunk release/CH2 function is activated by the controller. The output will remain as long as the controller button(s) is held.
CONNECTION: Connect this wire to the vehicle's existing trunk release switch if it is a low current negative circuit. If the circuit is a high current ground or a positive circuit, the use of a relay is required.

ORANGE WIRE - STARTER INTERRUPT (-) OUTPUT & RELAY

This provides 500mA negative ground while the alarm is armed for starter kill. The operation is selectable with user feature #4.
CONNECTION: This wire is connected to the orange input wire on the included start interrupt relay socket. Then, locate the vehicle's (+) starter wire at the ignition switch and cut it. Connect the starter interrupt relay's RED wire to the ignition switch side of the cut starter wire. Connect the starter interrupt relay's WHITE wire to the starter side of the cut starter wire.

8 Pin Secondary Wire Harness

BROWN WIRE - SIREN (+) OUTPUT

This output provides a 1 amp positive output to operate the included siren.
CONNECTION: Safely route this wire to the chosen mounting location of the siren and connect it to the siren's red wire. Connect the siren's black wire to chassis ground.

WHITE WIRE - FLASHING LIGHT (+) OUTPUT

This output provides a 10 amp positive output to flash the vehicle's parking lights (typically). If the vehicle has a low current negative parking light circuit, use the WHITE/BLACK wire instead.
CONNECTION: Connect this wire to the vehicle's positive parking light circuit. It will show +12 volts when the parking lights are on. **BE SURE NOT TO CONNECT TO THE DIMMER CIRCUIT WHICH WILL CHANGE VOLTAGE AS YOU TURN THE DIMMER KNOB.**

GREEN WIRE - DOOR TRIGGER (-) INPUT

This input is used to detect entry into the vehicle via any door opening.
CONNECTION: Connect this wire to the vehicle's existing domelight circuit or door pin circuit. The circuit will show ground when any door is opened. If you are required to connect to each individual door pin, diode isolation is required. Use one 1-2 amp diode for each door, facing the diode's cathode (stripe) towards the vehicle wiring.

VIOLET WIRE - DOOR TRIGGER (+) INPUT

This input is used to detect entry into the vehicle via any door opening.
CONNECTION: Connect this wire to the vehicle's existing domelight circuit or door pin circuit. The circuit will show +12 volts when any door is opened. If you are required to connect to each individual door pin, diode isolation is required. Use one 1-2 amp diode for each door, facing the diode's cathode (stripe) towards the alarm module.

8 Pin Secondary Wire Harness (cont'd)

BLACK/RED WIRE - DOMELIGHT RELAY (+/-) INPUT

This circuit provides the constant feed input for the built-in 10 amp domelight relay. Specifically the normally open pin (pin 87).

CONNECTION: Connect this wire to constant power or chassis ground as needed for the chosen function.

GREEN/VIOLET WIRE - DOMELIGHT RELAY OUTPUT

This circuit provides the output for the built-in 10 amp domelight relay. Specifically the common pin (pin 30).

CONNECTION: Connect this wire to the vehicle's domelight circuit.

BLUE WIRE - HOOD TRIGGER (-) INPUT

REQUIRED. This input is used to detect entry into the hood area of the vehicle.

CONNECTION: Connect this wire to the vehicle's existing hood switch or light. It will show ground when the hood is opened. You can also use the included pin switch and mount it to the radiator core support.

PINK WIRE - 3RD CHANNEL (-) OUTPUT

This output provides a 250mA negative output when the CH3 function is activated by the controller. The output will remain as long as the controller button(s) is held.

CONNECTION: Connect this wire to any desired add-on accessory that can utilize a negative activation input.

2 Pin Secondary Wire Harness (Orange Connector)

WHITE/BLACK WIRE - FLASHING LIGHT (-) OUTPUT

This output provides a 250mA negative output to flash the vehicle's parking lights (typically). If the vehicle has a positive parking light circuit, use the WHITE wire instead. This wire can also be configured to operate as OEM arm pulse, 4th Channel latching, or 4th Channel pulsed/on demand.

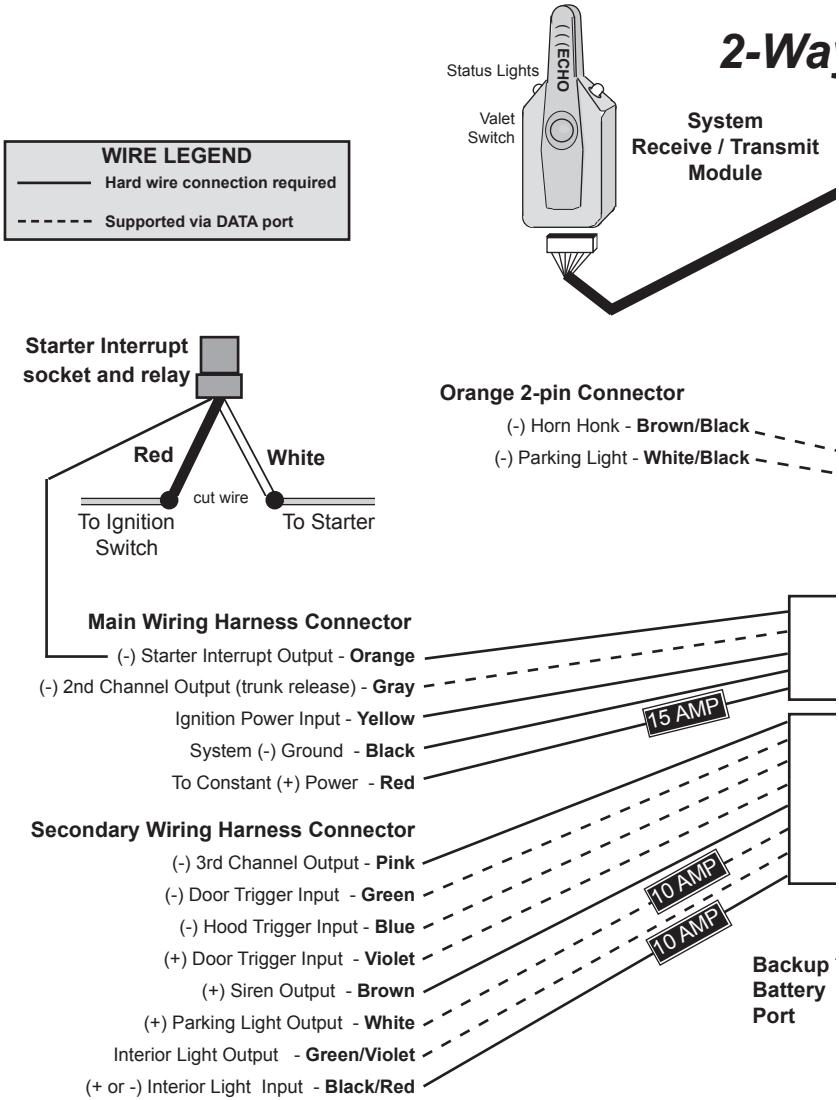
CONNECTION: Connect this wire to the vehicle's negative parking light circuit. It will show ground when the parking lights are on. **BE SURE NOT TO CONNECT TO THE DIMMER CIRCUIT- WHICH WILL CHANGE RESISTANCE TO GROUND AS YOU TURN THE DIMMER KNOB.**

BROWN/BLACK WIRE - HORN HONK (-) OUTPUT

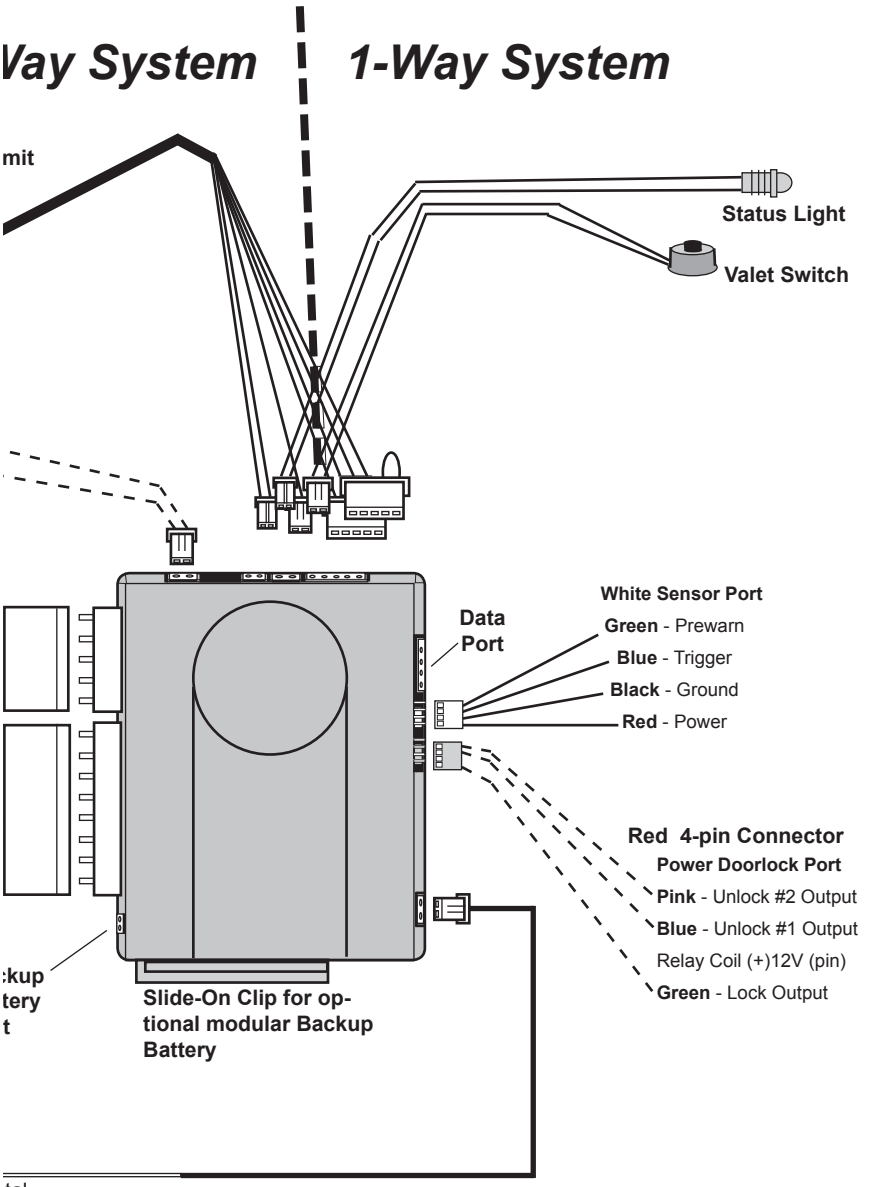
This output provides a 250mA negative output to honk the vehicle's horn. If the vehicle has a positive parking horn circuit, use a relay to convert the output. This wire can also be configured to operate as OEM disarm pulse, 5th Channel latching, or 5th Channel pulsed/on demand.

CONNECTION: Connect this wire to the vehicle's horn circuit. It will show a polarity change when the horn button is pressed.

Wiring Overview Diagram



Coaxial Antenna Cable: Route end as high as practical in vehicle, away from metal.
Note: *May not be present, or may be removed*



tal.

oved if the optional 2-way Echo kit is used.

4 Pin Door Lock/Unlock Port (RED)

GREEN WIRE - LOCK (-) OUTPUT

This provides a 0.8 second 250mA negative pulse for any locking operations. The pulse timing is programmable by feature #6.

CONNECTION: Connect this directly to the vehicle's lock circuit if a negative pulse is required. Otherwise, a doorlock interface and/or relays are required to convert the output.

RED WIRE - CONSTANT (+) OUTPUT

This output provides a 500mA positive output to drive the positive pin of added relay coils.

BLUE WIRE - UNLOCK #1 (-) OUTPUT

This provides a 0.8 second 250mA negative pulse for any unlocking operations. The pulse timing is programmable by feature #7.

CONNECTION: Connect this directly to the vehicle's "all door" unlock circuit if a negative pulse is required. Otherwise, a doorlock interface and/or relays are required to convert the output. If you are configuring the system for driver's priority unlocking, connect this only to the driver's door unlock circuit.

PINK WIRE - UNLOCK #2 (-) OUTPUT

This provides a 0.8 second 250mA negative pulse for any unlocking operations. The pulse timing is programmable by feature #7. This 2nd output is utilized only when you are configuring the system for driver's priority unlock.

CONNECTION: Connect this directly to the vehicle's "all door" unlock circuit if a negative pulse is required. Otherwise, a doorlock interface and/or relays are required to convert the output.

2 Pin Backup Battery Port (WHITE)

This system includes a bracket and harness for utilizing the backup battery option. Thanks to its innovative design, it only requires a 9 volt battery (can also use the rechargeable BATPACK-R for a permanent solution). Simply insert the battery into the supplied bracket and mount the battery pack on the slide bracket next to the backup battery port. Then connect the harness to the battery and module. If using the BATPACK-R (rechargeable), connect its red wire to a fused constant +12 volt source. When running on backup battery power, the system will only maintain the start interrupt, siren, door trigger, and hood trigger functions to maintain maximum battery life.

Data Port (GREEN)

This port provides a direct digital interface for any Omega IntelliKit or OmegaLink interface modules. It can eliminate the need for several wire-to-wire connections. Refer to the wire diagram overview on page 6-7 to see which circuits are supported by this port and compare them to the data functions available from the interface module. This port is capable of communicating using the standard D2D (Trilogix) protocol.

Dual Zone Sensor Port (WHITE)

This system is equipped with a white dual zone sensor port. Any Omega single or dual zone sensor will plug directly into this port. A dual zone shock sensor is included with this system. If more than 1 sensor is desired, you can expand a single port with the AU-EXP module. It adds 3 additional sensor ports to the system.

Antenna Ports

2-way systems are equipped with an outboard receiver or transceiver (2-way) module. It is designed to be window mounted high on the windshield for optimal performance and range. It is best to mount this module using the double sided stick pad included (be sure to clean glass before adhering). Mount it high in the windshield trying to avoid metal parts of the vehicle as they can create “blind spots” for the antenna. Also, metal based window tint can have an adverse affect on performance. Since the system’s status lights and valet are contained in this module, high visibility is also desired for theft deterrence. Route the harness from this port to the antenna module being sure to avoid sharp metal objects that could compromise the harness jacket.

1-way systems have a jumper (red loop wire in a 5 pin white connector) that is placed in this port for proper operation. The system will also include a long black coaxial antenna with a 2 pin white connector. This is plugged into the white 2-pin antenna port.

Status Lights

2-way systems include 2 status lights that are built into the window mount antenna module. It is desirable for these to be visible from as many angles around the vehicle as possible for maximum visual theft deterrence. The control module has a separate port for the status light. 1-way systems include a separate light than can be dash mounted by drilling a 9/32” hole or it can be placed in the included valet switch/status light holder

Valet / Programming Switch

2-way systems include a valet switch that is built into the window mount antenna module. The control module has a separate port for the valet switch, so an external switch (included with 1-way systems) can be dash-mounted directly or using the combo valet switch/status light holder.

Programming Transmitters

Standard Programming: Using this method to program additional or replacement transmitters does not turn on or otherwise affect the Unauthorized Transmitter Alert (UTA) feature.

Step 1 Have all transmitters which are to operate the system at hand. Then, turn the ignition “on”.

Step 2 Within 5 seconds of turning on the ignition, press the Valet Switch 5 times. The horn will briefly sound, confirming that for the next 10 seconds the system is ready to learn a transmitter/controller code. To enter a code, simply press and release the “**lock**” button. When the first code is learned all existing stored codes will be erased.

Step 3 Press the “**lock**” button on each remaining transmitter one at a time. The system will chirp the horn once to confirm that each transmitter was learned. If a code is not received within 10 seconds, the learning process will automatically terminate, as indicated by another horn honk.

If the Unauthorized Transmitter Alert feature is on, programming a transmitter to the system will activate the “UTA” warning and the extended Status Light indication. For the next 48 hours, the horn will sound a brief series of chirps every time the vehicle’s ignition key is turned on.

Special Programming procedure to turn On the UTA feature: Using this method to program transmitters or optional controllers, and to turn on the Unauthorized Transmitter Alert feature.

Follow the same steps as the Standard Programming, but on any transmitter/controller being programmed instead of pressing the “**lock**” button, press the “**lock**” and the “**unlock**” buttons together. This action turns **on** the Unauthorized Transmitter Alert feature and at the same time programs the transmitter or controller to operate the system.

Once the Unauthorized Transmitter Alert feature is turned on, the warning will sound for 48 hours after any transmitter programming, including the programming session which was used to turn it on. This feature can only be turned off again by sending the system back to Omega’s warranty department for a reset.

Programmable Features

PROGRAMMING FEATURES

A matrix of all programmable features and their options are on the next page. For detailed information on each feature, please refer to the operation manual. Use the procedure below to make any necessary changes.

Step 1 Turn the ignition key “ON”, then “OFF”

Step 2 Within 5 seconds of step 1, press the valet switch 5 times to access features.

~ The siren/horn will sound and the status light will turn on.

Step 3 Within 10 seconds of step 2, press the valet switch the number of times corresponding with the desired feature’s number.

~ The siren/horn will sound, the status lights, and the parking lights will flash equal to the selected feature.

Step 4 Change the feature by pressing the transmitter button that corresponds with the desired setting.

~ The siren/horn will sound, the status lights, and the parking lights will flash equal to the selected setting.

Step 5 If you wish to change more features, repeat steps 3 & 4 at this time.

Step 6 To exit programming, turn the ignition key “ON” then “OFF”. Or, you can wait 10 seconds for programming mode to expire.

User Feature Programming: Ignition on, off, press valet 5 times, press valet # of times equal to the feature #				
# Feature	**Lock Button**	**Unlock button**	**Trunk button**	**"START" button**
1 Secure Code	1, 0 (default)			
2 Last Door Arming	Off	On w/o lock	On w/ Lock	
3 Automatic Rearming	Off	On w/o lock	On w/ Lock	
4 Starter Interrupt Functions	Alarm	Off	Automatic	
5 Ignition Override	On	Off		
6 Lock w/ Ignition On	On	Off		
7 Unlock w/ Ignition Off	Off	Unlock #1	Unlock #2	Unlock #1 & #2
8 Open Door Bypass For Ign. Locks	On	Off		
9 Confirmation Chirps	On	Off	Except Valet mode	Valet Mode Only
10 Chirp Volume	Low	Med Low	Med Loud	Loud
11 Alarm Cycle	30 sec	60	90	120
12 Lights Upon Disarm	On	Off		
13 Disarm Upon Trunk Release	On	Off		
14 Arming Delay	3 sec	15	30	45
15 Siren Output	Steady	Pulse Horn Lo	Pulse Horn Med	Pulse Horn Hi
16 Alarm Functions Bypass	On	Off		
17 Ignition Anti-carjack	On	Off		
18 Door Anti-carjack	On	Off		
19 Remote Anti-carjack	On	Off		
20 Open Door Warning On Arm	On	Off		
21 "III" Button Function	3rd Channel	Panic	4th Channel	5th Channel
Installer Features				
22 Doorlock pulse	0.8 sec	3 sec	Double unlock	Total closure
23 (-) WHITE/BLACK wire Functions	OEM Arm	Parking lights	4th CH. Latching	4th CH. Pulsed
24 (-) BROWN/BLACK wire Functions	OEM Disarm	Horn Honk	5th CH. Latching	5th CH. Pulsed

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